What is claimed is:

[Claim 1] 1. An apparatus comprising:

a communication device capable of communicating tasks requiring execution;

a designated unit capable of processing the communicated tasks

a power regulator capable of regulating the power supplied to the designated unit;

a complementary unit capable of receiving the communicated tasks, executing the communicated tasks either itself or providing the communicated tasks to the designated unit for execution while ensuring that the power supplied to the designated unit is consistent with that required to execute the communicated task via the power regulator.

[Claim 2] 2. The apparatus of claim 1 wherein the designated unit includes at least one internal unit capable of having its clock speed adjusted, and the complementary unit further includes:

circuits capable of controlling the clock speed of the at least one internal unit for desired performance requirements.

[Claim 3] 3. The apparatus of claim 1 wherein the designated unit includes at least one voltage controllable unit, and the complementary unit further includes:

voltage controlling circuitry capable of controlling the voltage supplied to the at least one voltage controllable unit.

[Claim 4] 4. The apparatus of claim 1 wherein the communication device includes a universal interrupt controller capable of communicating tasks supported by the designated unit that are ready for execution.

[Claim 5] 5. The apparatus of claim 4 wherein the complementary unit includes:

power controlling circuitry capable of powering-up and powering-down the designated unit using the power regulator.

[Claim 6] 6. The apparatus of claim 5 wherein the designated unit includes at least one internal unit capable of having its clock speed adjusted, the complementary unit further including:

circuits capable of controlling the clock speed of the at least one internal unit for desired performance and power requirements.

[Claim 7] 7. The apparatus of claim 6 wherein the designated unit includes at least one voltage controllable unit, and the complementary unit further includes:

voltage controlling circuitry capable of controlling the voltage supplied to the at least one voltage controllable unit.

[Claim 8] 8. The apparatus of claim 7 wherein the communication device includes a universal interrupt controller capable of communicating tasks supported by the designated unit that are ready for execution.

[Claim 9] 9. The apparatus of claim 8 wherein the complementary unit is capable of executing a subset of the communicated tasks.

[Claim 10] 10. The apparatus of claim 9 wherein the complementary unit is capable of executing all of the communicated tasks.

[Claim 11] 11. A method of controlling power consumption in an integrated circuit, the method comprising the steps of:

communicating tasks for execution;

creating a designated unit capable of processing the communicated tasks;

creating a complementary unit for the designated unit, the complementary unit receiving the tasks and either executing the communicated tasks itself or providing the communicated tasks to the designated unit for execution.

[Claim 12] 12. The method of claim 11 further comprising the steps of:

receiving a communicated task with the complementary unit; and

selecting, using the complementary unit, the task for execution by the complementary unit or the designated unit depending upon on which selection will save power.

[Claim 13] 13. The method of claim 12 wherein the step of selecting includes:

selecting the complementary unit for executing the communicated task.

[Claim 14] 14. The method of claim 13 further comprising the step of:

powering down the designated unit.

[Claim 15] 15. The method of claim 12 wherein the step of selecting includes:

selecting the designated unit for executing the communicated task.

[Claim 16] 16. The method of claim 15 further comprising the step of:

powering up the designated unit.

[Claim 17] 17. An integrated circuit comprising:

a designated unit capable of executing a set of tasks;

a complementary unit capable of selecting either itself or the designated unit for execution of a received task, the complementary unit using less power than the designated unit would for execution of the same task.

[Claim 18] 18. The integrated circuit of claim 17 wherein the complementary unit includes:

a power controlling unit capable of powering up and powering down the designated unit depending upon its selection for execution of tasks.

[Claim 19] 19. The integrated circuit of claim 18 wherein the designated unit includes:

voltage controllable circuitry capable of having its power or voltage level lowered or turned off.

[Claim 20] 20. The integrated circuit of claim 19 wherein the power controlling unit includes the ability to control the voltage controllable circuitry in order to save power.

[Claim 21] 21. The integrated circuit of claim 20 wherein the power controlling unit controls the power supplied to the voltage controllable circuitry during the execution of a particular task in order to save power.